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CH2MHILL

March 29, 2004

Mr. Henry Chui
California Environmental Protection Agency,
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subject: Transformer Substation Outside of Building 46 Within Investigation Area C2 on the Eastern Early Transfer Parcel of Mare Island Where No Further Action is Required Under the Department of Toxic Substances Control Consent Agreement

Dear Mr. Chui:

CH2M HILL prepared this letter in compliance with the requirements in the Consent Agreement (LMI et al. 2001) signed April 16, 2001 between Lennar Mare Island (LMI), the City of Vallejo, and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) and according to the *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003a). The purpose of this letter is to obtain DTSC concurrence that a no further action (NFA) determination is appropriate with respect to polychlorinated biphenyl (PCB) contamination as part of the overall regulatory closure process for the transformer substation outside of Building 46 on the LMI property of Mare Island. An NFA determination is appropriate because clean up actions were performed by the Navy, and the remaining PCB concentrations pose no risk to human health or the environment.

PCB Site Identification

From visual site surveys, as well as from review of historical records, building closure reports, and databases of electrical equipment, the Navy identified PCB sites where PCB-containing equipment was located, where PCB spills were documented, or where contamination was suspected because of building history or visible stains (TtEMI 1998). Navy personnel from Supervisor of Shipbuilding, Conversion and Repair, Portsmouth, Virginia, Environmental Detachment (SSPORTS) conducted interim PCB assessments and performed cleanup actions (i.e., washing, scabbling) in accordance with Technical Work Documents (TWDs), where necessary. Following the SSPORTS interim PCB assessments and any cleanup actions, Tetra Tech Environmental Management, Inc. (TtEMI) personnel collected confirmation samples either to confirm SSPORTS findings that no cleanup was necessary or to determine the effectiveness of the SSPORTS cleanup actions.

Building 46 is located within Investigation Area (IA) C2. The building is bounded by 8th Street on the north, Rickover Street (formerly 9th Street) on the south, Nimitz Avenue (formerly California Avenue) on the east, and Railroad Avenue on the west. Built in 1856, Building 46 is one of the oldest buildings on Mare Island and was originally used as a smithery workshop. Building 46 is within the area of Mare Island designated as the historic core according to the

Preliminary Land Use Plan (LMI 2000); residential use is restricted in the historic core area. Figure 1 shows the PCB site locations within IA C2.

Three PCB sites associated with Building 46 are listed in the Consent Agreement for the Eastern Early Transfer Parcel at Mare Island (LMI et al. 2001): Assessment Location (AL)#01 through AL#03. This letter addresses Building 46 AL#03, the transformer substation located outside the eastern side of the building. This substation has a sheet metal roof and is surrounded by building walls and a locked fence. Building 46 AL#01 and AL#02 (ground and mezzanine floors inside the building) were addressed in a submittal to DTSC dated May 2, 2003 (CH2M HILL 2003b). DTSC approved the NFA determination for Building 46 AL#01 and AL#02 in a letter dated August 6, 2003 (DTSC 2003).

Documentation of the Navy PCB site assessment sampling, cleanup actions, and confirmation sampling for the Building 46 PCB sites is contained in the *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Report* (TtEMI 1998) in the section for parcel 04-B1. The PCB site closure process, previous sampling, and cleanup action at Building 46 AL#03 are discussed in detail below.

PCB Site Closure Process

The *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003a) illustrates the process for PCB site closure under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Toxic Substances Control Act (TSCA). Under CERCLA, NFA is appropriate at a PCB site if there is no potential source and no PCB contamination present at the site (CH2M HILL 2003a). Even if there is a potential source or PCB contamination present in machinery or building materials, NFA under CERCLA is appropriate at a site if there is no release of PCBs to soil or groundwater, nor any visible pathway for migration of PCBs to soil and/or groundwater (CH2M HILL 2003a). If there is a known release to soil or groundwater, then NFA is also appropriate if the detected PCB concentrations in soil and groundwater do not exceed the applicable preliminary remediation goal (PRG), or results of a site-specific risk evaluation demonstrate that potential risks associated with exposure to residual PCBs are below the risk level generally used to determine if cleanup is necessary. NFA under TSCA is appropriate at sites where the maximum remaining PCB concentration is less than or equal to 1 milligram per kilogram (mg/kg) or 10 micrograms per 100 square centimeters (µg/100 cm^2) (CH2M HILL 2003b). In compliance with this process, Figure 2 provides a flowchart illustrating the PCB site closure process, with the path for Building 46 AL#03 is highlighted.

Site Investigations/Cleanup Actions

Table 1 provides a summary of the previous sampling at Building 46 AL#03. This table includes the sample numbers, matrix, sample dates, and total PCB concentrations (the laboratory reporting limit is given when PCBs were not detected). Attachment A provides figures from previous site investigations at Building 46 AL#03. Attachment B provides photos of this site.

The transformer history of this substation is not known but the PCB assessment report states that several old transformers were replaced in 1987 (SSPORTS 1996a). Currently there is one dry transformer (T-1789), switch gear, and one rocker arm (RA-101). According to the Navy's transformer inventory, RA-101 contains 130 gallons of oil with a PCB concentration of 1 part per million (Navy 1996).

As part of the interim assessment, SSPORTS personnel collected four transformer pad samples from Building 46 AL#03 on May 10, 1996. PCBs were detected in all four samples at concentrations ranging from 13.8 mg/kg to 7,500 mg/kg (SSPORTS 1996a). Because PCBs were detected at elevated concentrations during this assessment, SSPORTS issued TWD 96-1308 on August 26, 1996 to remediate this transformer substation (SSPORTS 1996b). The cleanup action consisted of concrete and asphalt removal/disposal. When remediation of the site was complete, SSPORTS collected one verification soil sample beneath the removed surface materials to confirm successful abatement; PCBs were detected in this soil sample at a concentration of 0.23 mg/kg (SSPORTS 1996b).

TtEMI personnel collected three confirmation samples at Building 46 AL#03 on August 26, 1998 (TtEMI 1998). Two soil samples were collected from within the abated area, and one wood sample was collected from an exposed railroad tie adjacent to the abated area (TtEMI 1998). PCBs were detected in both soil samples at estimated concentrations of 0.016 and 0.018 mg/kg, respectively, and PCBs were detected in the wood sample at an estimated concentration of 0.11 mg/kg (TtEMI 1998). Based on results of these confirmation samples, PCB assessment and cleanup activities were considered to be complete at Building 46 AL#03 (TtEMI 1998).

Conclusions

The former transformers at this substation (source of the PCB contamination) were removed in 1986. Following the Navy cleanup action at the transformer substation at Building 46 AL#03, the maximum remaining PCB concentration in a soil sample was 0.23 mg/kg. This concentration is less than the United States Environmental Protection Agency Region 9 PRG of 0.74 mg/kg for industrial areas. Consequently, we are requesting that DTSC issue an NFA determination for Building 46 AL#03 under CERCLA.

Please respond to this letter with confirmation that, in accordance with the approved *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003a), NFA under CERCLA is appropriate for Building 46 AL#03. Please submit your approval of NFA at this site to me at the above address or via e-mail at jmorris1@ch2m.com. If you have any questions regarding the site addressed in this letter, please contact Carla Duncan at 775/329-7238, extension 220.

References

CH2M HILL. 2003a. *Final Polychlorinated Biphenyl Work Plan*. March 7.

_____. 2003b. Letter. "Sites in the Eastern Early Transfer Parcel of Mare Island Where No Further Action is Required under the Department of Toxic Substances Control Consent Agreement." May 2.

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Lennar Mare Island (LMI). 2000. *Preliminary Land Use Plan.* May 23.

Lennar Mare Island, the City of Vallejo, and the State of California, Environmental Protection Agency Department of Toxic Substances Control. 2001. *Consent Agreement between Lennar Mare Island, the City of Vallejo, and the State of California, California Environmental Protection Agency Department of Toxic Substances Control.* April 16.

Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment (SSPORTS). 1996a. *PCB Assessment for Property Leasing Conditions of Parcel 04-B1 Property.* July 22.

_____. 1996b. *PCB Decontamination Technical Work Document (TWD). PCB-Contaminated Item: Transformer Pad. TWD No. 96-1308, Bldg No. 46.* August 26.

Tetra Tech Environmental Management, Inc. (TtEMI). 1998. *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Summary Report.* February 13.

United States Department of the Navy (Navy). 1996. *PCB Transformers.* Table from the Caretaker Site Office. November 5.

Sincerely,

CH2M HILL

for

Jeffery C. Morris, PE

RDD/040890001 (NLH2589.DOC)

Enclosures: Table 1, Figures 1 and 2, Attachments A and B

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TABLE 1
Sample Results for Building 46 AL#03
PCB Sites, Lennar Mare Island, Vallejo, California

PCB Site Name	Site Description	Sample Number	Sample Matrix	Sample Date	PCB Concentration	Units	Comments
Building 46 AL#03	Former Transformer Substation	6127-0208	concrete	5/10/96	7,500	mg/kg	Removed by TWD 96-1308
		6127-0209	concrete	5/10/96	400	mg/kg	Removed by TWD 96-1308
		6127-0210	concrete	5/10/96	13.8	mg/kg	Removed by TWD 96-1308
		6127-0211	concrete	5/10/96	38.0	mg/kg	Removed by TWD 96-1308
		6271-0181	Soil	10/09/96	0.23	mg/kg	TWD verification sample
		PC5301	Soil	8/26/98	0.016 J	mg/kg	
		PC5302	Wood	8/26/98	0.11 J	mg/kg	
		PC5303	Soil	8/26/98	0.018 J	mg/kg	

Notes:

Sample numbers beginning with PC were collected by TtEMI. All other samples were collected by SSPORTS.

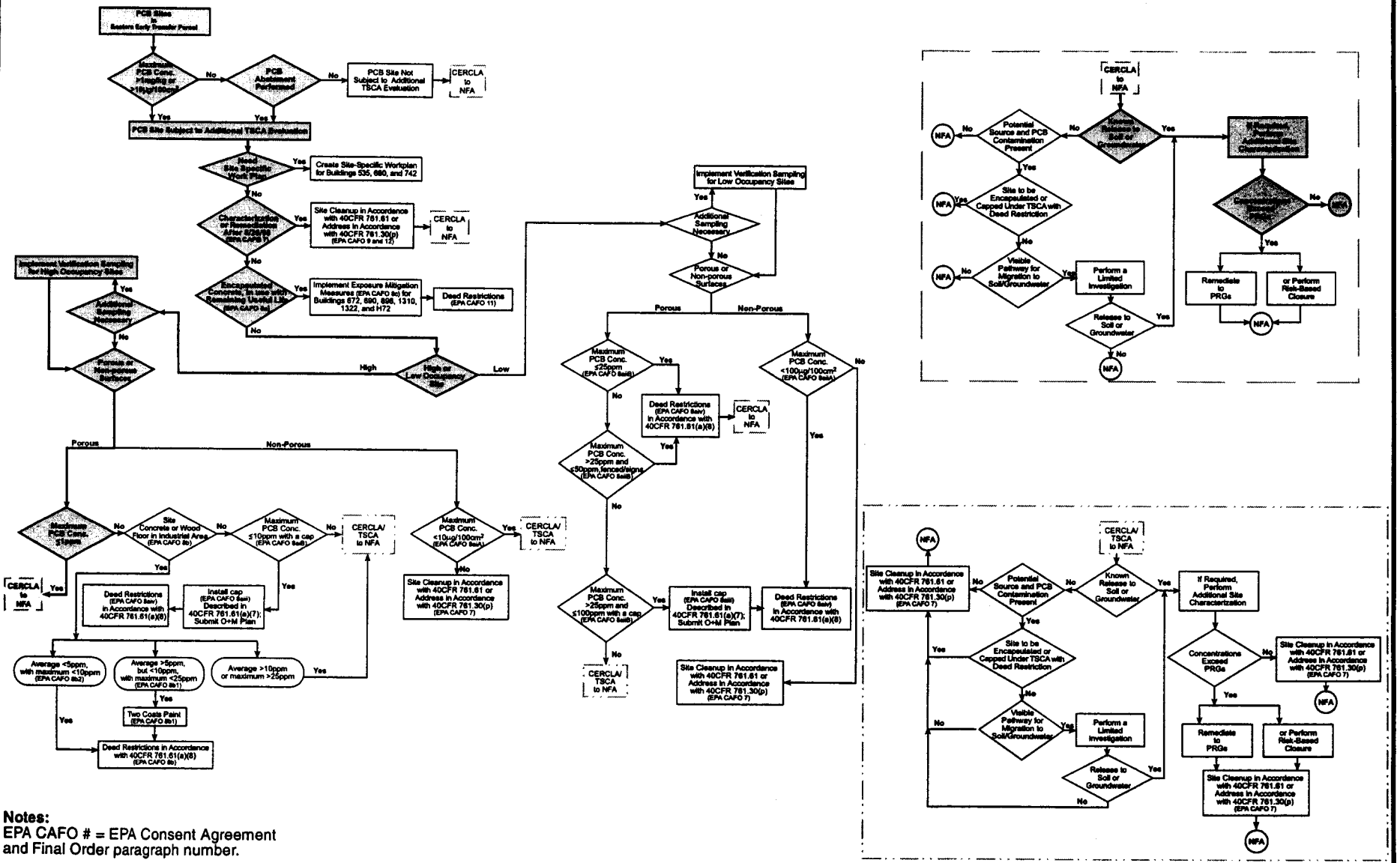
AL = Assessment Location.

J = Estimated value.

mg/kg = milligrams per kilogram.

PCB = polychlorinated biphenyl.

TWD = Technical Work Document.



Notes:
EPA CAFO # = EPA Consent Agreement and Final Order paragraph number.

NFA = No further action.

O+M = Operations and Maintenance.

PRG = Preliminary Remediation Goal.

E012004001RDD_265 (2/24/04)

FIGURE 2
PATH FOR PCB SITE CLOSURE
BUILDING 46 AL#03
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

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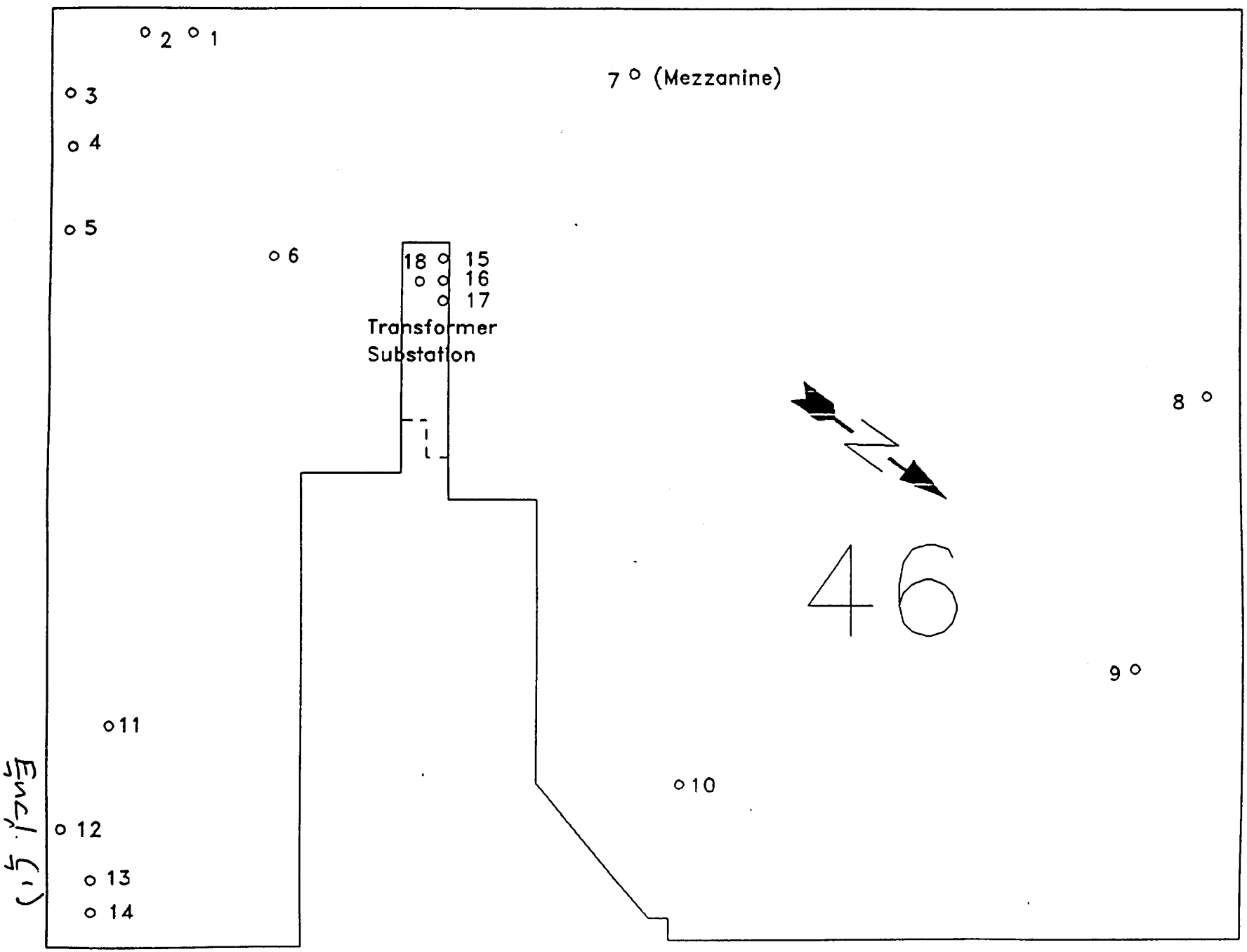
Attachment A
Building 46 AL#03 Sample Locations

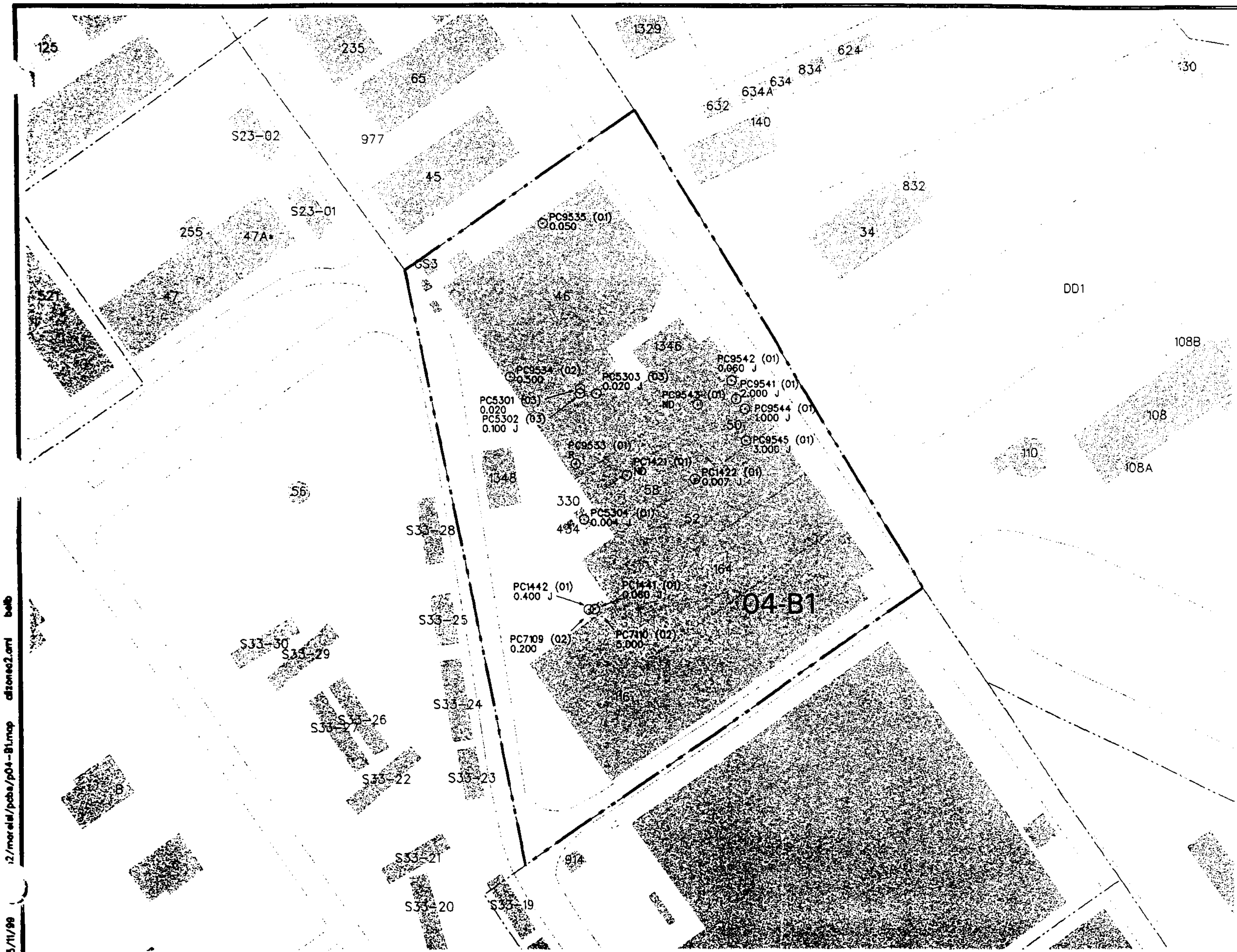

2
1
7 (Mezzanine)
3
4
5
6
18
15
16
17
Transformer
Substation
8
46
9
11
10
12
13
14

Encl. 5(1)

KEY TO BUILDING 46
SAMPLE NUMBERS

1	6156-0010
2	6156-0011
3	6156-0012
4	6156-0013
5	6156-0014
6	6156-0015
7	6156-0016
8	6156-0017
9	6156-0018
10	6156-0019
11	6156-0028
12	6156-0029
13	6156-0030
14	6156-0031
15	6127-0208
16	6127-0209
17	6127-0210
18	6127-0211

Encl. (1)
6 of 7


04-B1
PC9535 (01)
0.050
PC9534 (02)
0.500
PC5301 (03)
0.020
PC5302 (03)
0.100 J
PC5303 (03)
0.020 J
PC9543 (01)
ND
PC9542 (01)
0.060 J
PC9541 (01)
2.000 J
PC9544 (01)
1.000 J
PC9545 (01)
3.000 J
PC9533 (01)
R
PC1421 (01)
ND
PC1422 (01)
0.007 J
PC5304 (01)
0.004 J
PC1442 (01)
0.400 J
PC1441 (01)
0.060 J
PC7109 (02)
0.200
PC7110 (02)
5.000
125
235
65
977
45
S23-02
S23-01
255
47A
47
46
1346
1348
1329
632
634A
634
834
624
140
832
34
130
DD1
108B
108
108A
110
56
330
58
52
50
164
161
S33-28
S33-25
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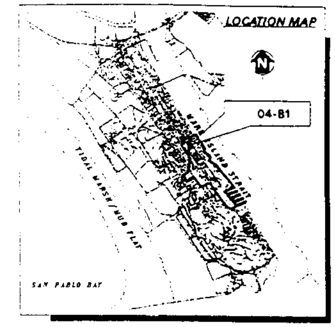
S33-21
S33-20
S33-19
914



LEGEND

04-B1	PARCEL BOUNDARY
164	BUILDING
⊙	PCB CONFIRMATION SAMPLE LOCATION
(01)	PCB ASSESSMENT LOCATION NUMBER
PC1422	PCB SAMPLE IDENTIFICATION NUMBER
0.050	PCB SAMPLE CONCENTRATION (MG/KG)
ND	NOT DETECTED
J	ESTIMATED VALUE
R	REJECTED SAMPLE

50 0 50 100
SCALE IN FEET

MARE ISLAND, CALIFORNIA

PARCEL 04-B1
PCB CONFIRMATION SAMPLE LOCATIONS AND RESULTS

PARCEL 04-B1

PCB CONFIRMATION SAMPLING RESULTS, BUILDING 46
MARE ISLAND

Inside/ Outside	PCB Assessment Location	Location Description	Sample Identification Number	Sample Matrix	PCB Concentration (mg/kg)
Inside	01	Floor of the workshop	PC9533	Tile	R
		Floor of the workshop	PC9535	Concrete	0.05
Inside	02	Floor of the workshop mezzanine	PC9534	Concrete	0.5
Outside	03	Transformer substation	PC5301	Soil	0.02
		Transformer substation	PC5302	Wood	0.1
		Transformer substation	PC5303	Soil	0.02

Notes:

mg/kg	Milligrams per kilogram
PCB	Polychlorinated biphenyl
R	Rejected

Attachment B
Building 46 AL#03 Photos